UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
2144	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/955,525	COLLINS, LEONARD ALAN
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 July 2006_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _43-69_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _43-69_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

P47

DETAILED ACTION

1.   Amendment received on 07/26/2006 has been entered into record. Claim 69 is amended.

Claims 43-69 are currently pending.

2.   Amendment received on 02/15/2006 was entered. Claims 28-42 were cancelled. Claims

43-69 were new.

3.   Amendment received on 06/30/2005 was entered. Claims 1-27 were cancelled. Claims

28-42 were new.

Priority

4.   This application has no priority claim made. The filing date is 09/18/2001.

Claim Rejections - 35 USC § 112, second paragraph

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

Claims 43-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

   a.   Claims 43, 50 and 67 recite the limitation of "hole-punching" which renders the

        claims indefinite. More specific limitation (preamble) should be used. Otherwise,

        claims 43, 50 and 67, and their dependent claims, i.e. claims 44-49, 51-66 and 68-69

        are rejected. For the purpose of applying art, claims are read with no regards the

        limitation of "hole-punching", i.e. as if the limitation is deleted.

   b.   Claims 43, 64 and 67 recite the limitation of "immaterial" which renders the claims

        indefinite. More specific limitation should be used. Otherwise, claims 43, 64 and 67,

and their dependent claims, i.e. claims 44-49 and 68-69 are rejected. For the purpose

of applying art, claims are read with no regards the limitation of cited the

"immaterial", i.e. as if the statement containing the limitation of "immaterial" is

deleted.

c. Claims 44 and 52 recite the limitation of "harmless" which renders the claims

indefinite. More specific limitation (preamble) should be used. These claims are thus

rejected.

d. Claim 69 depends upon claim 68 that depends upon claim 67. Claim 67 is a device

claim. However claim 69 adds additional limitation, i.e. "embodied computer-

executable instructions on a computer-readable medium" that describes the scope of

claim 69 as a software per se and thus modifies the nature of dependent claims 67 and

68 not be able to behave like a device as described in claim 67, i.e. means for and

prohibit meaningful structure could be used to support "for". Applicant is required to

correct the claim language of claim 69, cancel claim 69 and/or add a set of program

claims in additional to the method and device claims 43-68.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign
country or in public use or on sale in this country, more than one year prior to the date of
application for patent in the United States.

Claims 43, 47, 49-51, 55-63 and 67-68 are rejected under 35 U.S.C. 102(b) as being

anticipated by Srisuresh, et al., (U.S. Patent Number 6,058,431), hereinafter referred as

Srisuresh.

    a. Regarding claim 43, Srisuresh disclosed a method comprising: creating a hole-

        punching message addressed to a remote device and configured to enable a network

        address translator to create an address mapping; sending the hole-punching message

        such that the hole-punching message is processed by the network address translator,

        such that the address mapping is created (column 5, line 45-column 6, line 11, Fig. 2:

        PC108a initiates an outbound session and transmits data with locally significant IP

        address to be translated to a globally significant address by the stub router 106).

    b. Regarding claim 47, Srisuresh disclosed the method of claim 43 wherein the creating

        and the sending of the hole-punching message is initiated by a program (column 8,

        line 49-53, Fig. 6).

    c. Regarding claim 49, Srisuresh disclosed the method of claim 43 wherein the method

        is embodied in computer-executable instructions stored on computer-readable media

        (column 8, line 49-53, Fig. 6).

    d. Regarding claim 50, Srisuresh disclosed a method performed by a program (column

        8, line 49-53, Fig. 6) operating on a local device, the method comprising: creating a

        hole-punching message addressed to a remote device; configuring the hole-punching

        message to enable a network address translator to create a unique address mapping;

        sending the hole-punching message; and wherein the hole-punching message is

        received and processed by the network address translator such that the unique address

mapping is created , such that a subsequent unsolicited communication sent from the

remote device to the program via the network address translator is forwarded to the

program utilizing the unique address mapping (column 5, line 45-column 6, line 11,

Fig. 2: PC108a initiates an outbound session and transmits data with locally

significant IP address to be translated to a globally significant address by the stub

router 106).

e. Claim 51, 55-56, 61 and 67 are of the same scope as claim 50. These are rejected for

the same reasons as for claim 50.

f. Regarding claim 57, Srisuresh disclosed the method of claim 50 wherein the unique

address mapping includes a public address of the remote device (column 5, line 61-

62: IP destination address).

g. Regarding claim 58, Srisuresh disclosed the method of claim 50 wherein the unique

address mapping includes a private address of the local device (column 5, line 59-60:

locally significant source IP address).

h. Regarding claim 59, Srisuresh disclosed the method of claim 50 wherein the unique

address mapping is operative for communications formatted using Transmission

Control Protocol (column 4, lines 17-37: TCP).

i. Regarding claim 60, Srisuresh disclosed the method of claim 50 wherein the unique

address mapping is operative for communications formatted using User Datagram

Protocol (column 4, lines 17-37: UDP).

j.   Regarding claim 62, Srisuresh disclosed the method of claim 50 wherein the local

device is coupled to the network address translator via a private network (column 4,

lines 17-37: private address domain).

k.   Regarding claim 63, Srisuresh disclosed the method of claim 50 wherein the network

address translator is coupled to the remote device via the Internet (column 4, lines 17-

37: public address domain, IP v.4).

l.   Claim 68 is of the same scope as claims 59-60. It is rejected for the same reasons as

for claims 59-60.

Srisuresh disclosed all limitations of claims 43, 47, 49-51, 55-63 and 67-68. Claims 43, 47,

49-51, 55-63 and 67-68 are rejected under 35 U.S.C. 102(b).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would have
been obvious at the time the invention was made to a person having ordinary skill in the art
to which said subject matter pertains. Patentability shall not be negatived by the manner in
which the invention was made.

Claims 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srisuresh et al.

(US 6058431 A), hereinafter referred as Srisuresh, and further in view of Berg et al. (US

6674713 B1), hereinafter referred as Berg.

a.   Srisuresh disclosed claim 50 as above. Srisuresh does not show (claim 65) wherein

the hole-punching message is formatted to include a NULL content field.

    b. Berg shows (claim 65) wherein the hole-punching message is formatted to include a NULL content field (column 22, line 25-44: NUL segment) in an analogous art for the purpose of method and apparatus for providing continuous voice and call communications between a data network and a telephony network.

    c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srisuresh's functions of system and method for network address translation as an external service in the access server of a service provider with Berg's functions of using null packet.

    d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to use a null packet for keeping packet data connection alive per Berg's teaching (column 22, lines 25-44) in providing network accessing control per Srisuresh (column 2, lines 27-45: using a network address translator on an access server for locally and globally IP address translation) and Berg (column 17, lines 9-17: RUDP is used as a simple packet based transport protocol and provides reliable in-order delivery for virtual connection)'s teaching.

    e. Regarding claim 66, Srisuresh shows wherein the hole-punching message is formatted using Transmission Control Protocol or User Datagram Protocol (column 4, lines 17-37: TCP/UDP).

Together Srisuresh and Berg disclosed all limitations of claims 65-66. Claims 65-66 are rejected under 35 U.S.C. 103(a).

Response to Arguments

8.   Applicant's arguments filed on 07/26/2006 have been fully considered, but they are not

persuasive.

     a. In response to applicant's argument on rejection items a-c of section 4, i.e. in Claim

          Rejections - 35 USC § 112, second paragraph in the office action dated 04/27/2006,

          examiner still can not limit the claim language for claims 43-44, 50, 52, 64 and 67 as

          per applicant suggests. Although the claims are interpreted in light of the

          specification, limitations from the specification are not read into the claims. See In re

          Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The descriptive claim

          language, e.g. hole-punching, immaterial, harmless, does not provide specific

          limitations on the claimed invention rather renders as in conceptual or theoretical

          description on the intended invent that does not scope the claimed invention properly.

          Thus it is suggested that more specific limitations should be defined for the claimed

          invention.

     b. In response to applicant's arguments on rejection item a of section 6, i.e. in Claim

          Rejections - 35 USC § 102 in the office action dated 04/27/2006, applicant has stated

          that "...the hole-punching message is not really an invitation because it need not

          reach the remote device." This is not specified in the claim language. See also

          paragraph 37 of applicant's specification as quoted "The directory service of FIG. 6

          may be used for this purpose, or the port may be communicated to device 118 in the

          hole-punching message itself. In the latter case, unlike in the example of FIG. 3, it is

          important that the hole-punching message actually reach device 118." Examiner

interprets that the hole-punching message could reach device 118 and applicant needs

to explain how device 118 would learn the hole if the hole-punching message does

not reach device 118. As for the limitation of "immaterial" is addressed as per

applicant suggested above in item a.

c. Applicant has further argued items d-e of section 6, i.e. in Claim Rejections - 35 USC

§ 102 in the office action dated 04/27/2006, examiner has reviewed the claim

language and applicant's argument. The claim language and current argument seem to

follow the similar arguments and claim language per claim 43, thus the above

response, i.e. as in item b, should apply. Particularly, applicant seems to read the

specification in general into the claim language. Examiner can only interprets the

claim language in light of applicant's specification. Applicant needs to be more

specific in the claim language to draw distinct features from the applied prior arts.

d. It is the Examiner's position that Applicant has not submitted claims drawn to

limitations, which define the operation and apparatus of Applicant's disclosed

invention in manner, which distinguishes over the prior art. As it is Applicant's right

to claim as broadly as possible their invention, it is also the Examiner's right to

interpret the claim language as broadly as possible. It is the Examiner's position that

the detailed functionality that allows for Applicant's invention to overcome the prior

art used in the rejection, fails to differentiate in detail how these features are unique

(see item a in section 5). As it is well known in the network address translation

technology that a network address translator is provided address translation between a

public network, e.g. Internet, and a private network, e.g. an intranet. The registration

of IP address/port translation is specified in various RFCs under IETF. Srisuresh is

used to illustrate how the network address translation is used. Additional arts exist on

the application of network address translation, e.g. items a-b in Remarks section

below. It is clear that Applicant must be able to submit claim language to distinguish

over the prior arts used in the above rejection sections that discloses distinctive

features of Applicant's claimed invention. It is suggested that Applicant compare the

original specification and claim language with the cited prior art used in the rejection

section above or the Remark section below to draw an amended claim set to further

the prosecution.

e. Failure for Applicant to narrow the definition/scope of the claims and supply

arguments commensurate in scope with the claims implies the Applicant's intent to

broaden claimed invention. Examiner interprets the claim language in a scope

parallel to the Applicant in the response. Examiner reiterates the need for the

Applicant to more clearly and distinctly define the claimed invention.

Remarks

9.   The following pertaining arts are discovered and not used in this office action. Office

reserves the right to use these arts in later actions.

    a. Egevang et al. (RFC 163, May 1994) The IP Network Address Translator

    b. BODEN et al. (US 6266707 B1) System and method for IP network address

       translation and IP filtering with dynamic address resolution

Conclusion

10.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS

from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action is not mailed until after the end

of the THREE-MONTH shortened statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

11.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The
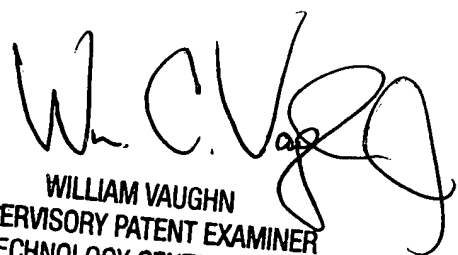
examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the statu9s of an application may be obtained from the Patent

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